What is Claimed is:

1. A wireless communication method comprising:

transmitting wireless communications from at least two radioterminals to a base station co-channel over a return link using a return link alphabet; and

transmitting wireless communications from the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

2. A method according to Claim 1 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to the at least two radioterminals non-co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

3. A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one antenna at the base station co-channel over a return link using a return link alphabet.

4. A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one multiple-polarized antenna at the base station co-channel over a return link using a return link alphabet.

5. A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas at the base station co-channel over a return link using a return link alphabet.

6. A method according to Claim 1 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station co-channel over a return link using a return link alphabet.

7. A method according to Claim 1 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one multiple-polarized antenna in at least two sectors of the base station co-channel over a return link using a return link alphabet.

8. A method according to Claim 1 wherein the base station is a first base station and wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to at least one multiple-polarized antenna at the first base station and at least one multiple-polarized antenna at a second base station co-channel over a return link using a return link alphabet.

9. A method according to Claim 6 wherein transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station co-channel over a return link using a return link alphabet comprises:

selectively transmitting wireless communications from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station co-channel over a return link using a return link alphabet if the at least two radioterminals are separated by more than a predetermined distance.

10. A method according to Claim 1 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from a single linearly-polarized antenna at each of the at least two radioterminals to a base station co-channel over a return link using a return link alphabet.

11. A method according to Claim 1 further comprising:

decoding the wireless communications that are transmitted from the at least two radioterminals to the base station co-channel.

12. A wireless communication method comprising:

transmitting wireless communications from at least two radioterminals to a base station over a return link using a return link alphabet; and

transmitting wireless communications from the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

13. A method according to Claim 12 wherein transmitting wireless communications from at least two radioterminals to a base station comprises:

transmitting wireless communications from at least two radioterminals to a base station co-channel over a return link using a return link alphabet.

14. A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to at least one antenna at each of the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

15. A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to at least one multiple-polarized antenna at each of the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

16. A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from the base station to a plurality of multiple-polarized antennas at each of the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

17. A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one antenna at the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

18. A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one linearly-polarized antenna at the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

19. A method according to Claim 12 wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least two linearly-polarized antennas at the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

20. A method according to Claim 12 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two linearly-polarized antennas at the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least two linearly-polarized antennas in a sector of the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

21. A method according to Claim 12 wherein the base station includes a plurality of sectors and wherein transmitting wireless communications from at least two linearly-polarized antennas at the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one linearly-polarized antenna in at least two sectors of the base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

22. A method according to Claim 12 wherein the base station is a first base station and wherein transmitting wireless communications from the base station to the at least two radioterminals comprises:

transmitting wireless communications from at least one linearly-polarized antenna at the first base station and at least one linearly-polarized antenna at a second base station to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

23. A method according to Claim 12 further comprising:

decoding the wireless communications that are transmitted from the base station to the at least two radioterminals co-channel.

24. A wireless communication method comprising:

receiving wireless communications from a base station at a first radioterminal and at at least one second radioterminal that is proximate the first radioterminal, over a forward link, co-channel;

relaying the wireless communications from the at least one second radioterminal to the first radioterminal over a short-range wireless link; and

using the wireless communications that are relayed to the first radioterminal from the at least one second terminal over the short-range wireless link to process the wireless communications that are received from the base station at the first radioterminal.

25. A wireless communication method according to Claim 24:

wherein receiving wireless communications from a base station at a first radioterminal and at at least one second radioterminal that is proximate to the first radioterminal, over a forward link, co-channel comprises receiving wireless communications from a base station at a first radioterminal and at at least one second radioterminal that is proximate to the first radioterminal, over a forward link, co-channel using a forward link alphabet; and

wherein the method further comprises transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

26. A method according to Claim 25 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to at least one antenna at the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

27. A method according to Claim 25 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to a plurality of multiple-polarized antennas in a sector of the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

28. A method according to Claim 25 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to at least one multiple-polarized antenna in at least two

sectors of the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

29. A method according to Claim 25 wherein the base station is a first base station and wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to at least one multiple-polarized antenna at the first base station and at least one multiple-polarized antenna at a second base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet.

30. A method according to Claim 27 wherein transmitting wireless communications from the first radioterminal and at least one second radioterminal to a plurality of multiple-polarized antennas in a sector of the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet comprises:

transmitting wireless communications from the first radioterminal and at least one second radioterminal to a plurality of multiple-polarized antennas in a sector of the base station co-channel using a return link alphabet that has fewer symbols than the forward link alphabet if the first radioterminal and the at least one second radioterminal are separated by more than a predetermined distance.

31. A wireless communication method comprising:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a base station over a return link using a return link alphabet and from the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

32. A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one antenna at the base

station over a return link using a return link alphabet and from the at least one antenna at the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

33. A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one multiple-polarized antenna at the base station over a return link using a return link alphabet and from the at least one multiple-polarized antenna at the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

34. A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas at the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas at the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

35. A method according to Claim 31 wherein the base station includes a plurality of sectors and wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas in the sector of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

36. A method according to Claim 31 wherein the base station includes a plurality of sectors and wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one multiple-polarized antenna in at least two sectors of the base station over a return link using a return link alphabet and from the at least one multiple-polarized antenna in the at least two sectors of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

37. A method according to Claim 31 wherein the base station is a first base station and wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to at least one multiple-polarized antenna at the first base station and at least one multiple-polarized antenna at a second base station over a return link using a return link alphabet and from the at least one multiple-polarized antenna at the first base station and the at least one multiple-polarized antenna at the second base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

38. A method according to Claim 35 wherein bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas in the sector of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet comprises:

selectively bidirectionally transmitting wireless communications co-channel in time division duplex from at least two radioterminals to a plurality of multiple-polarized antennas in a sector of the base station over a return link using a return link alphabet and from the plurality of multiple-polarized antennas in the sector of the base station to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet if the at least two radioterminals are separated by more than a predetermined distance.

39. A method according to Claim 31 wherein bidirectionally transmitting comprises:

bidirectionally transmitting wireless communications co-channel in time division duplex from a single linearly-polarized antenna at each of the at least two radioterminals to at least one antenna at the base station over a return link using a return link alphabet and from the at least one antenna at the base station to the single linearly-polarized antenna at each of the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

40. A method according to Claim 31 further comprising:

decoding the wireless communications that are transmitted co-channel in time division duplex from the at least two radioterminals to the base station and from the base station to the at least two radioterminals.

41. A base station comprising:

a receiver that is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet; and

a transmitter that is configured to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

42. A base station according to Claim 41 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals non-co-channel over the forward link using a forward link alphabet that has more symbols than the return link alphabet.

43. A base station according to Claim 41 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at at least one antenna.

44. A base station according to Claim 41 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at at least one multiple-polarized antenna.

45. A base station according to Claim 41 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at a plurality of multiple-polarized antennas.

46. A base station according to Claim 41 wherein the base station includes a plurality of sectors and wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at a plurality of multiple-polarized antennas in a sector of the base station.

47. A base station according to Claim 41 wherein the base station includes a plurality of sectors and wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet at at least one multiple-polarized antenna in at least two sectors.

48. A base station according to Claim 41 wherein the receiver is further configured to decode the wireless communications that are received from the at least two radioterminals co-channel.

49. A base station comprising:

a receiver that is configured to receive wireless communications from at least two radioterminals over a return link using a return link alphabet; and

a transmitter that is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

50. A base station according to Claim 49 wherein the receiver is configured to receive wireless communications from at least two radioterminals co-channel over a return link using a return link alphabet.

51. A base station according to Claim 49 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-

channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one antenna.

52. A base station according to Claim 49 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one linearly-polarized antenna.

53. A base station according to Claim 49 wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least two linearly-polarized antennas.

54. A base station according to Claim 49 wherein the base station includes a plurality of sectors and wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least two linearly-polarized antennas in a sector.

55. A base station according to Claim 49 wherein the base station includes a plurality of sectors and wherein the transmitter is configured to transmit wireless communications to the at least two radioterminals co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one linearly-polarized antenna in at least two sectors.

56. A base station comprising:

a time division duplex transceiver that is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

57. A base station according to Claim 56 wherein the transceiver is configured to receive wireless communications co-channel from at least two

radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one antenna.

58. A base station according to Claim 56 wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one multiple-polarized antenna.

59. A base station according to Claim 56 wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at a plurality of multiple-polarized antennas.

60. A base station according to Claim 56 wherein the base station includes a plurality of sectors and wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at a plurality of multiple-polarized antennas in a sector.

61. A base station according to Claim 56 wherein the base station includes a plurality of sectors and wherein the transceiver is configured to receive wireless communications co-channel from at least two radioterminals over a return link using a return link alphabet and to transmit wireless communications to the at least two radioterminals over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one multiple-polarized antenna in at least two sectors.

62. A base station according to Claim 60 wherein the transceiver is configured to selectively receive wireless communications co-channel from at least two radioterminals to the plurality of multiple-polarized antennas in the sector over a return link using a return link alphabet if the at least two radioterminals are separated by more than a predetermined distance.

63. A base station according to Claim 56 wherein the time division duplex transceiver is further configured to decode the wireless communications that are received co-channel from the at least two radioterminals.

64. A radioterminal comprising:

a transmitter that is configured to transmit wireless communications to a base station over a return link using a return link alphabet; and

a receiver that is configured to receive at least two wireless communications from the base station co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

65. A radioterminal according to Claim 64 wherein the receiver is configured to receive at least two wireless communications from the base station co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one antenna.

66. A radioterminal according to Claim 64 wherein the receiver is configured to receive at least two wireless communications from the base station co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at at least one multiple-polarized antenna.

67. A radioterminal according to Claim 64 wherein the receiver is configured to receive at least two wireless communications from the base station co-channel over a forward link using a forward link alphabet that has more symbols than the return link alphabet at a plurality of multiple-polarized antennas.

68. A radioterminal according to Claim 64 wherein the receiver is further configured to decode at least one of the at least two wireless communications that are received from the base station co-channel.

69. A radioterminal comprising:

a receiver that is configured to receive wireless communications from a base station over a forward link, to receive the wireless communications from at least one second radioterminal over a short-range wireless link, and to use the wireless communications that are received from the at least one second terminal over the short-range wireless link to process the wireless communications that are received from the base station.

70. A radioterminal according to Claim 69:

wherein the receiver is configured to receive wireless communications from the base station over a forward link using a forward link alphabet; and

wherein the radioterminal further comprises a transmitter that is configured to transmit wireless communications to the base station using a return link alphabet that has fewer symbols than the forward link alphabet.

71. A radioterminal comprising:

a time division duplex transceiver that is configured to transmit wireless communications to a base station over a return link using a return link alphabet and to receive wireless communications from the base station over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

72. A radioterminal according to Claim 71 wherein the time division duplex transceiver is configured to transmit wireless communications from a single linearly-polarized antenna to the base station over a return link using a return link alphabet and to receive wireless communications from the base station at the single linearly-polarized antenna over a forward link using a forward link alphabet that has more symbols than the return link alphabet.

73. A radioterminal according to Claim 71 wherein the transceiver is further configured to decode the wireless communications that are received from the base station over the forward link.